



Purchasing Receipts

PO No	Supplier	Line No	Rel No	Terms	Purchased Item	Description	For Part	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days
P0039511	TWM001-VU	1	1	Net 30	M304TR0.500W/035	304 Round Tube .500				80	4/12/2018	80		S060102	Stock	4/11/2018	\$ 1.84 / pcs	0
		2			M4130NT0.750W/049	4130 Round Tube .750 X.049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft				20		23		S060103	Stock	4/11/2018	\$ 11.48 / pcs	0
		3			M4130NT0.750W/083	4130 Round Tube .750 X.083W : MATERIAL: AISI 4130N STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 receive ft						20		S060104	Stock	4/11/2018	\$ 5.03 / pcs	0
Total:										120		123						

Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada
Tel (613) 632-5200



PURCHASE ORDER

PO039511

Supplier:

TWM001-VU
PO Box 933014
Atlanta, GA 31193-3014 USA
Phone: 585 768 5600
Fax: 585 768 5601

Ship To:

1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No:

PO Date: 4/4/18
Due Date: 4/12/18
Purchase Order
Revision:
Revision Date:

Ship-To Contact:

Lavoie, Chantal@phone:
clavoie@dartaero.com

Via:

Ground
Net 30

Freight Terms:

Special Comments:

E-MAILED
APR 06 2018

Line	Item	Part	Supplier	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
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1	M304TR0.500W.035	304 Round Tube .500 X .035W	Firmed	4/12/18	80 pcs	0 pcs	80 pcs	\$1.8422/pcs	\$147.38
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2	M4130NT0.750W.049	4130 Round Tube .750 X.049W	Firmed	4/12/18	20 pcs	0 pcs	20 pcs	\$11.4754/pcs	\$229.51
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3	M4130NT0.750W.083	4130 Round Tube .750 X.083W	Firmed	4/12/18	20 pcs	0 pcs	20 pcs	\$5.03/pcs	\$100.60
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4	M6061T6T0.750W.125	6061-T6 Round Tube .750 X .125W	Firmed	4/12/18	12 pcs	0 pcs	12 pcs	\$9.20/pcs	\$110.40
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Grand Total: \$587.88										
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Plex 4/4/18 3:15 PM dart.lavoie.chantal										
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Order Notes

Procurement Quality Clauses

- A005 right of entry
 - A012 chemical and physical test report
 - A016 personnel qualification
 - A017 raw material identification (as applicable)
 - A026 certification of material conformance
 - A041 quality management system
 - A042 dart notification by supplier
 - A043 retention of quality documents
 - A048 counterfeit parts avoidance, detection, mitigation and disposition program
 - A049 supplier awareness
- Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

CF

Plex 4/4/18 3:15 PM dart.lavoie.chantal



Packing Slip

ORDER NO.: 60654053 FROM: CRAN PAGE 1

34.541 REQ. DATE: 04/12/18 CONFIRMED

SOLD TO: DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
CANADA
SHIP TO: DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
ONTARIO CANADA
CN K6A 1K7

SALES PERSON: DONNA SMALLEY
NET 30 DAYS
SHIPPING POINT
CUST ORD NO.: P0039511
SHIP BY: 04/09/18
COMMON CARRIER
PREPAID
VIA: FREIGHT: RELEASE NO.:
RECEIVING PHONE: WIDTH

LINE ITEM DESCRIPTION 0001 36449 SMLS CD 304/L A269 1/2 OD X .035 WA
CLN# ORD QTY INVOICE QTY SHIPPED QTY WT PCS
80.000 FT 80.000 FT 80.000 FT 13.901
1 TEST REPORTS REQUIRED **
1 CERTS REQUIRED **
ECCN: 2B999.g
PO: 49366890 HT: YX1608590
MFG: CHINA
SLB/CL: 7-45
CUSTOMER QTY: 0/00/00
Expiration Date: 0/00/00

0002 33047 CDS 4130 6736 3/4 X .049
CLN# ORD QTY INVOICE QTY SHIPPED QTY WT PCS
20.000 FT 23.500 FT 23.500 FT 8.618

1 TEST REPORTS REQUIRED **
1 CERTS REQUIRED **
ECCN: 9A991.d
PO: 49380066 HT: 606101
MFG: UNITED STATES
SLB/CL: 158452
CUSTOMER QTY: 0/00/00
Expiration Date: 0/00/00

0003 33096 SMLS CD 4130 6736 3/4 OD X .083 WA
CLN# ORD QTY INVOICE QTY SHIPPED QTY WT PCS
20.000 FT 20.333 FT 20.333 FT 12.022
1 TEST REPORTS REQUIRED **
1 CERTS REQUIRED **
ECCN: 9A991.d
PO: 49365379 HT: 603114
MFG: GERMANY
SLB/CL: 1634564
CUSTOMER QTY: 0/00/00
Expiration Date: 0/00/00

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
http://www.twmetals.com/invoice-terms.html



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 60654053 FROM: CRAN

PAGE 2

CUST NUMBER: 1203820 NET WGT:

34.541 REQ. DATE: 04/12/18 CONFIRMED

SOLD TO:

SHIP TO:

DART AEROSPACE LTD

DART AEROSPACE LTD

1270 ABERDEEN ST

1270 ABERDEEN ST

HAWKESBURY ON

HAWKESBURY ON

CN K6A 1K7

CN K6A 1K7

SALESPERSON: DONNA SMALLEY

SHIP BY:

04/09/18

TERMS: NET 30 DAYS

VIA:

COMMON CARRIER

F.O.B.: SHIPPING POINT

FREIGHT:

PREPAID

CUST ORD NO.: P0039511

RELEASE NO.:

LINE ITEM DESCRIPTION

RECEIVING PHONE:

BROKERS KUEHNE AND NAGEL LTD

LENGTH

AREA TYPE OF PKG

PKGS

GRS WEIGHT

WIDTH

LENGTH

HGHT

NEW PEN REDDICRATE

1.000

104.540

3.0000

282.0000

3

Orders In Package - 1

Box No - TWP K18009386

BY: Thomas Burgess

UNLOAD TYPE: NONE SPECIFIED

RT 000-

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>

DATE FILLED

DATE SHIPPED



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 60654053 FROM: CRAN

PAGE 3

34.541 REQ. DATE: 04/12/18 CONFIRMED

SHIP TO:

DART AEROSPACE LTD

1270 ABERDEEN ST

HAWKESBURY ON

ONTARIO CANADA

CN K6A 1K7

SHIP BY: 04/09/18

27 ENGLEHARD DRIVE

MONROE TWP NJ 08831

CUST NUMBER: 1203820 NET WGT:

SOLD TO:

DART AEROSPACE LTD

1270 ABERDEEN ST

HAWKESBURY ON

CANADA

SALESPERSON: DONNA SMALLEY

NET 30 DAYS

SHIPPING POINT

COMMON CARRIER

PREPAID

FREIGHT:

RELEASE NO.:

RECEIVING PHONE:

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for confiferous non-manufactured wood packing material"

Electronically Generated Certificate-Valid without signature Date: 4/06/18

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

REVIEW

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL

<http://www.twmetals.com/invoice-terms.html>

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49.5254.81-0 Fax: +49.5254.13866

BENTELER
Steel/Tube

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1
EN 10204-2005-01

Benteler Steel/Tube GmbH - Postfach 1340 - 33043 Paderborn - Deutschland

TW Metals
The Aboretum, Suite 204
760 Constitution Drive
EXTON PA 19341
USA

Dokument-Nr.: 41-1005860/001/Z

Document No.:
No. du document:

Kunden-Bestell-Nr.:
Purchase Order No.:

46004964 TW M49365379

No. de commande du client:

Benteler Auftrags-Nr.:
Benteler Order No.:

1634564

No. de commande Benteler:

Versandanzeigen-Nr.:
Dispatch Note No.:

4195522

No. d'avis d'expédition:

Prüf-Nr.:
Inspection No.:

No. du certificat:

Hersteller: Warmrohrwerk/Ziehwerk
Manufacturer: IPD EN ISO 9001, ISO/TS 16949 CERTIFIED BY TÜV NORD SYSTEM

Produkt: NAHTLOSE STAHLROHRE
Product: SEAMLESS STEEL TUBES

Herstellerzeichen:
Manufacturer's brand:

Marque du producteur:

Stempel des Abnahmebeauftragten: W/A
Stamp of the inspection representative:

Poligon du contrôleur:

Stahlschmelzungsverfahren: ELEKTROSTAHL
Steelmaking process: ELECTRIC FURNACE

Procédé d'élaboration de l'acier: FOUR ELECTRIQUE

Lieferbedingung: AMS-T-6736B-08 Type 1, ASTM-A 519-2006, MIL-T-6736B Type 1, AMS6360 Rev. M, AMS 2301K

Terms of delivery:
Conditions de livraison:

Maße - Toleranzen: AMS 2253E-83, Aircraft Type, Seamless, Cold Finished

Dimensions-tolérances:

Stahlsorte: GRADE 4130

Steel grade:

Nuance d'acier:

Lieferzustand: Condition N

Delivery condition:

État de livraison:

Produktkennzeichnung: FSD: BENTELER AMS6360M-AMS-T-6736 B-1-MIL-T-6736 B-1-AMS 2301K 4130 Condition N HEAT-NO.

Product marking:

CD AQS DIMENSIONS W/A GERMANY

Marquage du produit:

AZ = Azimutbezeichnung, Eching ink marking, Gravure à l'encre - FK = Farbmarkierung, color marking, marquage par couleur - FS = Falschablenung, paint stamping, marquage par peinture - FSD = Farbstrahlprüfer, Color jet printer, imprimante à jet d'encre de couleur - LK = Laserkennzeichnung, Laser marking, Marquage laser - PKG = Etikettenschilderung, tag marking, marquage sur étiquette - PS = Prägestempel, die stamp, marquage par poinçonnage - TS = Trennschmelzverfahren, ink jet spray marking, imprimante à jet d'encre

TW METALS
E JUN 13 2017
ACCEPTED BY

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49-5254-81-0 Fax: +49-5254-13666

BENTELER
Steel/Tube

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.:
Document No.:
No. du document:

41-1005860/001/Z

Prüf-Nr.:
Inspection No.:
No. du certificat:

Blatt: 2 / 3
Page:
Page:

Pos.	Stück	Maße	Item	Number	Dimensions	Poste	Nombre	Dimensions	Gesamtlänge	Gewicht	Schmelzen-Nr.	Prüfdruck	Rohr-Nr.-Gruppe	Vierfachlängen
									Length total	Weight	Heat No.	Test pressure	Tube number group	Multiple lengths
									Longueur totale	Poids	N° de coulée	Pression d'épreuve	Série de no. des tubes	Longueurs multiples
									feet	lbs				
0009	80	0.750" O.D. * 0.083" WT							1830.71	1067	603114			
		20 FT - 24 FT												

Pos.	Schmelzen-Nr.	C	SI	MN	P	S	CR	MO	NI	CU
Item	Heat No.									
Poste	No. de coulée									
0009	603114	0,310	0,240	0,56	0,005	0,001	0,87	0,17	0,08	0,11

Pos.	Schmelzen-Nr.	C	SI	MN	P	S	CR	MO	NI	CU
Item	Heat No.									
Poste	No. de coulée									
0009	603114	0,300	0,230	0,53	0,006	0,001	0,87	0,17	0,08	0,11

Prüfergebnisse / Test results / Résultats des essais

Die Rohre wurden zerstörungsfrei geprüft:

The tubes are non destructive tested:

Les tubes ont passé un essai non destructif:

ET-test: acc. to ASTM-A 450; ET - Test method: acc. to ASTM-E 309; for imperfections;
ET-test: ET with rotating pancake coils; according to EN 10246-3; imperfections;
Notch depth: 0,30 mm; notch width < = notch depth; notch length min. 2 x transducer width (max. 50 mm)

Augensichtkontrolle:	PASSED	Materialverwechslungsprüfung:	PASSED	Maßkontrolle:	PASSED
Visual inspection:		Material conformity test:		Dimensions examination:	
Examen visuel:		Vérification de la nuance:		Vérification des dimensions:	

Ergebnisse der mechanischen Prüfung / Results of mechanical testing / Résultats des essais mécaniques

Die Probenahme erfolgte an Vielfachlängen.
The sampling was carried out on multiple lengths.
L'échantillonnage était réalisé aux longueurs multiples.

Benteler Steel/Tube GmbH
Postfach 13 40
33043 Paderborn
Deutschland
Tel.: +49.5254.81-0 Fax: +49.5254.13666

BENTELER
Steel/Tube

ABNAHMEPRÜFZEUGNIS EN 10204-3.1
INSPECTION CERTIFICATE EN 10204-3.1
CERTIFICAT DE RECEPTION EN 10204-3.1

Dokument-Nr.:
Document No.:
No. du document:

41-1005860/001/Z

Prüf-Nr.:
Inspection No.:
No. du certificat:

Blatt: 3 / 3
Page:
Page:

Zugversuch längs bei RT, Vollprobe / Tensile test longitudinal at RT, Full section test specimen / Essai de traction longitudinale à TA, Epreuve à section complète

Pos.	Proben-Nr. Specimen No.	Schmelzen-Nr. Heat No.	Probenabmessung Specimen dimensions	Streckgrenze Yield strength	Zugfestigkeit Tensile strength	Dehnung Elongation
Poste	No. de l'éprouv.	No. de coulée	Dimensions de l'éprouv.	Limite élastique	Résistance à la traction	Allongement
Anforderungen				Rp 0,2 %	Rm	A2"
Requisiments			mm	KSI	KSI	%
Exigences				MIN 75	MIN 95	MIN 12,00
0009	000001	603114	19,04 X 2,12	102	123	18,00
0009	000002	603114	19,04 X 2,12	103	123	19,00

Randentkohlung / Surface decarburization / Décarburation superficielle

Pos. / Item / Poste: 0009

acc. to AMS-6360, partial decarburization outside max. 0.014 in, partial decarburization inside max. 0.014 in, partial decarburization outside and inside max. 0.018 in, partial decarburization outside and inside max. 0.457 mm, without total decarburization, partial decarb. out. max.: 0,356 mm; partial decarb. ins. max.: 0,356 mm

Vermerk / Remark / Remarque

Pos. / Item / Poste: 0009

Certificate remarks: The steel grade corresponds to MILL-T-6736B, AMS 6360M, material free from mercury contamination, FAR BAA: 52.225-1 CANNOT COMPLY, DFARS BAA: 252.225-7001 CAN COMPLY, FAR TAA: 52.225-5 CAN COMPLY, No weld repair has been carried out, Country of origin of the material and heat: Germany, Aircraft quality steel acc. to AMS 2301K; see appendix page 1 of 1

Pos. / Item / Poste: 0009

Macroscopic examination: acc. to ASTM-E 381

Pos. / Item / Poste: 0009

Magnetic particle inspec.: acc. to AMS 2301K/ASTM-E 1444, on prematerial

Pos. / Item / Poste: 0009

Grain size: acc. to ASTM-E 112; Grain size and finer: 5; Grain size: Longitudinal structure micrography, on prematerial

Verkäufer(in) / Sales Personnel / Personne chargée: Mr. Schwarz, Tel.: 05254 81-204311, Fax: 204391
Paderborn Schloß Neuhaus, 19.05.2017, TEL.: 05254.81-201767 FAX: 05254.81-201752

Abnahmebeauftragter
Inspection representative
Contrôleur

I. A. THOMAS GOLLAN / TEM

Es wird bestätigt, daß die gelieferten Erzeugnisse den techn. Lieferbedingungen des Auftrages entsprechen. Dieses Dokument wurde mittels EDV erstellt und ist ohne Unterschrift rechtsgeültig.
We certify that the supplied products comply with the order specification. This document was prepared by means of electronic data processing and is valid without signature.
Nous attestons que les produits livrés sont conformes aux stipulations de la commande. Ce document a été établi par traitement électronique de l'information et est valide sans signature.

Benteler Steel/Tube GmbH
Residenzstraße 1
33104 Paderborn
Germany
Tel.: 49 5254 81-0 Fax: 49 5254 13666



Abnahmeprüfzeugnis EN 10204-3.1 / Anhang
Inspection Certificate EN 10204.3.1 / appendix
Certificat de réception EN 10204-3.1 / appendice

Dokument-Nr.
Document No.:
No. de document

41-1005860/001/Z

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Page: 1 of 1
Page: de

Halbzeuguntersuchung: Stahlsorte 4130 / Semi finished product examination: grade 4130 / Produit semi-fini: nuance 4130

Schmelzen-Nr. Heat No. Coulée No.	Position Item Poste	Korngröße Grain size Grossueur de grain (ASTM-E 112)	Härtbarkeit (min. Anforderungen) Trempeabilité (exigence min.) (ASTM-A 255)		Magnetpulverprüfung Essai à la poudre magnétique (AMS 2301 K/ASTM-1444)		Makroätzung Macrostructure test Essai de macrostructure (ASTM-E 381)		
		min. 5	J(5/16") min. 35 HRC	J(8/16") min. 28 HRC	F max. 0,34	S max. 0,25	max. S 2	max. R 1	max. C 2
603114	009	9	40	32	0,020	0,015	S 2	R 1	C 2
Decarburization Depth		Outside 0,000 mm	Inside 0,000 mm						

Der Stahl ist frei von Quecksilberverunreinigungen. / The steel is free of mercury contamination. / L'acier est libre des contaminations de mercure.

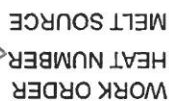
Paderborn Schloß Neuhaus, 19.05.2017
Tel.: (0)5254.81-201760 Fax: (0)5254.81-201752

Abnahmebeauftragter
Inspection representative
Contrôleur

Thomas Gollan



TRUST YOUR SOURCE! ACCEPT NO SUBSTITUTIONS!



TW Metals
27 Englehard Drive
Monroe Township, NJ 08831
USA

SALES ORDER - LINE / RLS
158452 - 1 / 1

158452 - 1 / 1

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company. Stearator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

PRODUCT CERTIFICATION

SALES ORDER - LINE / RLS

158452 - 1 / 1



PLYMOUTH TUBE CO.
1209 East 12th Street, Streator, Illinois 61364
Phone: (815) 673-1515 Fax: (815) 672-7343



SHIP TO

WORK ORDER 022738
HEAT NUMBER 606101
MELT SOURCE Benteler Steel & Tube-Germany

TW Metals
27 Englehard Drive
Monroe Township, NJ 08831
USA

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	LADING NO	CERT ID / REV	CERT DATE
M 49380066	33047	3,078.5 ft	00098303	01	01/25/2018
PART DESCRIPTION					
H07500490J000Z					

This test report data is for the heat Chemistry Stated above.

The material in this test report is:

- 1) Drawn in the USA
- 2) Free from Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Mercury contamination.
- 3) NAFTA compliant.

End of Certification

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

Quality Assurance
Janis Blumhoff

MILL TEST REPORT

Purchaser: TW METALS-Cranbury		Certificate No.: 2017-8-81		Contract No.: TWM P.O.No.: M49366890		Date of Issue: 2017.8.26		Specifications: ASTM A213-17/ASME SA213-15/ASTM A269-15a EAW		Process: Cold Drawn		Delivery Condition: OD Polished to 240 Grit	
Steel Grade		Heat Number		Lot Number		Dimensions		Quantity		Pieces		Feet	
								2500		50,000			
TP304/TP304L		YX1608-590		7-45		1/2"x0.035"x20'						50,000	

Chemical Composition by Weight (%)							
Element	C	Mn	P	S	Si	Cr	Ni
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00
Ladle Analysis	0.017	1.28	0.033	0.002	0.35	18.22	8.06
Product Analysis	0.022	1.27	0.035	0.004	0.38	18.36	8.09

Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI)		Yield Strength (PSI)		Test Results		
							Requirements	61/62	99,000/100,000
Test Item	Reduction of Area Z (%)		Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test	Test Results
Test Results						Passed	Passed	OK	
						Intergranular Corrosion Test	Macroscopic Inspection	Appearance	OK
Test Item	ASTM E 426		Air Underwater Pressure Test	Ultrasonic Test	ASTM A262 E	End Cut	Test Results		
							Requirements	-	-
Test Results									

ISO 9001:2008 Certified by CAS 117 16 QU 0053-06 ROS

PED Certified by SZUTEST 2195-PED-1526002

Additional Remarks:

(1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes

(2) All tubes tested per ASTM A1016-17

(3) Materials is NACE MR0103-2007 compliant (per Section 2.5)

(4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)

CANNOT CERTIFY COMPLIANCE FAR BAA / DFARS BAA / FAR TAA

- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

We hereby certify that this report is true and correct.

Quality Control Department

James Shi / Manager

By:



James Shi

Jiangsu Pufa Stainless Steel Tube Co., Ltd.

No. 99, Xuean Middle Road, Dongchen Town, Rugao City, Jiangsu Province, P.R.China

ACCEPTED SEP 19 2017 TW METALS

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4130A1A, 750W.083 DATE: APR 11 2018

THICKNESS ORDERED: W.083 THICKNESS RECEIVED: W.083

SHEET SIZE ORDERED: N/A SHEET SIZE RECEIVED: N/A

MATERIAL CERT REC'D: Yes QUANTITY RECEIVED: 201

QUANTITY INSPECTED: 201 QUANTITY REJECTED: 0

PO / BATCH NO.: 039511/5060104

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	
CORRECT FINISH	<input checked="" type="radio"/> Y	
CORROSION	<input checked="" type="radio"/> Y	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	
CORRECT THICKNESS	<input checked="" type="radio"/> Y	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

QC 18 INSPECTION ENGINEERING SIGNOFF (if required)

INSPECTED BY: DAS SIGNED OFF BY: _____

DATE: 9-89 APR 11 2018 DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 4130N SEAMLESS STEEL TUBING
 SPECIFICATION: MIL-T-6736 OR AMS 6371, 6360, 6361, 6362, 6373, 6374
 PART NUMBER: M4130N (D.DDD W.TTT)
 WHERE: "D.DDD" = OUTER DIAMETER (IN INCHES)
 AND "TTT" = WALL THICKNESS (IN INCHES)
 DIA. WALL

EG. 3/4" TUBING WITH .035" WALL = M4130N(T)0.750W.035

B	REFORMAT DWG TO ACCOMMODATE ADDITIONAL TUBE	RP	12.04.02
A	NEW ISSUE	JB	01.05.16
REV	DESCRIPTION	BY	DATE
DESIGN	JB		
DRAWN	RP		
CHECKED	AP		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.04.02		

DART AEROSPACE LTD
 HAWKESBURY, ONTARIO CANADA
 DRAWING NO. M4130N-T
 TITLE STEEL TUBING
 REV. B
 SHEET 1 OF 1
 SCALE NTS

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RELEASE
 2012-04-16

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M430N/C.250W.049 DATE: APR 11 2018

THICKNESS ORDERED: 4.049 THICKNESS RECEIVED: W.049

SHEET SIZE ORDERED: W/A SHEET SIZE RECEIVED: W/A

MATERIAL CERT REC'D: Yes QUANTITY RECEIVED: 23'

QUANTITY INSPECTED: 23' QUANTITY REJECTED: 0

PO / BATCH NO.: 039711/5060103

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	
CORRECT FINISH	<input checked="" type="radio"/> Y	
CORROSION	<input checked="" type="radio"/> Y	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	
CORRECT THICKNESS	<input checked="" type="radio"/> Y	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
HRC	HRB	DUR A	DUR D	WEBSTER
RECORD RESULTS BELOW				
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

Testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if required)

SIGNED OFF BY: _____ DATE: APR 11 2018

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ANSI 4130N SEAMLESS STEEL TUBING

SPECIFICATION: MIL-T-6736 OR AMS 6371, 6360, 6361, 6362, 6373, 6374

PART NUMBER: M4130N (D.D.D. W. T.T.T.)
 WHERE: "D.D.D." = OUTER DIAMETER (IN INCHES)
 AND "T.T.T." = WALL THICKNESS (IN INCHES)

EG. 3/4" TUBING WITH .035" WALL = M4130NT0.750W.035

RELEASE
 2012-04-16

B	REFORMAT DWG TO ACCOMMODATE ADDITIONAL TUBE DIAMETERS AND WALL THICKNESS	RP	12.04.02
A	NEW ISSUE	JB	01.05.16
REV	DESCRIPTION	BY	DATE
DESIGN	JB		
DRAWN	RP		
CHECKED	AP		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.04.02		

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DART AEROSPACE LTD
 HAWKESBURY, ONTARIO, CANADA

DRAWING NO. M4130N-T
 TITLE STEEL TUBING

REV B
 SHEET 1 OF 1
 SCALE NTS

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304T8030W.035 DATE: APR 11 2018
 PO / BATCH NO.: 039511/5060102

MATERIAL CERT REC'D: Yes QUANTITY RECEIVED: 80'
 QUANTITY INSPECTED: 80' QUANTITY REJECTED: 0
 THICKNESS ORDERED: W.035 THICKNESS RECEIVED: W.035
 SHEET SIZE ORDERED: N/A SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	
CORRECT FINISH	<input checked="" type="radio"/> Y	
CORROSION	<input checked="" type="radio"/> Y	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	
CORRECT THICKNESS	<input checked="" type="radio"/> Y	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	
CORRECT # ON THE MATERIAL	<input checked="" type="radio"/> Y	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.				
RECORD RESULTS BELOW				
HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

Testers located in the Quality Office

QC 18 INSPECTION ENGINEERING SIGNOFF (if required)

INSPECTED BY: DAS SIGNED OFF BY: _____

DATE: APR 11 2018 DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING
 SPECIFICATION: ASTM A213 OR ASME SA213 OR ASTM A269

WALL THICKNESS TOLERANCE PER ASTM A269 AS FOLLOWS:

OD (IN)	PERMISSIBLE	PERMISSIBLE
UP TO 1/2	OD TOL (IN)	WALL TOL
1/2 TO 1 1/2, EXCL.	±0.005	±15%
1 1/2 TO 3 1/2, EXCL.	±0.005	±10%
3 1/2 TO 5 1/2, EXCL.	±0.010	±10%
5 1/2 TO 8, EXCL.	±0.015	±10%
	±0.030	±10%

PART NUMBER:

M304TR|D|DDD|W|.TTT
 OD | WALL

WHERE "D,DDD" = OUTSIDE DIAMETER IN INCHES
 AND ".TTT" = WALL THICKNESS IN INCHES

EG. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065

RELEASED
 08/18/23

B	REFORMAT DWG, ADD SPECS (ZN D8-1).	CP	08.10.20
A	NEW ISSUE	DS	01.06.08
DESIGN		BY	DATE
DRAWN		DART AEROSPACE LTD	
CHECKED		HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.		DRAWING NO.	REV. B
APPROVED		M304TR	SHEET 1 OF 1
DE APPR.		TITLE	SCALE
DATE	08.10.20	304/316 ROUND TUBING	NTS

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